

SECRET [REDACTED]

25X1

USSR: Reaction to Extended SanctionsImmediate Response

The Soviets have sharply criticized the extended embargo on petroleum equipment. Foreign Minister Gromyko made Moscow's most authoritative statement at his press conference last Monday, claiming that the US was trying to "destroy the bridges" remaining between East and West. He added, however, that the US move would not delay the gas export pipeline project. Soviet media commentary has accused the US of attempting "political blackmail" and has argued that Washington's decision will increase existing differences between the US and Western Europe over East-West trade. [REDACTED]

25X1

Moscow will work hard to obtain West European circumvention of the embargo. The Soviets view the pipeline project as the cornerstone of East-West trade in the 1980s and as an important opportunity to enhance their influence in Western Europe at US expense. They thus see the US embargo as a major challenge, and President Brezhnev reportedly has made the pipeline a top foreign policy priority. Foreign Minister Gromyko's "destroyed bridges" charge confirms other Soviet indications that Moscow is determined to complete the project and to use the increasingly tough US position to aggravate European anxieties about US policies. The Soviets have been pushing the West Europeans both publicly and privately to get around the initial embargo on GE turbine rotors. They almost certainly believe that negative European reaction to the expanded restrictions will make the Europeans susceptible to Soviet pressure to produce the turbines. [REDACTED]

25X1

SECRET [REDACTED]

SECRET [REDACTED]

25X1

Turbine Options

We believe that, with or without the participation of Western industry, the Soviets can come up with an array of equipment to provide the necessary compression of gas on the export pipeline. [REDACTED]

25X1

- o The Soviets preferred solution is to obtain the GE-design Frame V turbines, either with GE rotor sets or with substitutes manufactured in Western Europe. [REDACTED]
- o A number of other courses of action involving West European participation are possible, including West European manufacture of rotor sets for the Soviet-designed 25-MW turbine now being tested in Leningrad, the use of smaller West European turbines, and/or the use of 12-MW or 16-MW electric motors on part of the pipeline. [REDACTED]
- o If Western firms and governments back away from supplying the equipment, the Soviets could switch to the compressor station designs and the domestically manufactured equipment used on their internal pipelines. [REDACTED]

25X1

25X1

25X1

All of these options involve changes that could delay the complete equipping of the pipeline up to three years from the Soviet target date of October 1984. But the use of Soviet-made equipment for the export pipeline would represent a substantial set-back to the domestic pipeline expansion program because of the diversion of turbines, compressors, control systems, and ancillary equipment. Moscow, therefore, will vigorously seek to

-2-
SECRET [REDACTED]

25X1

SECRET [REDACTED]

25X1

engage West European firms in the supply of equipment. The possibilities are manifold, both in terms of specific manufacturers and equipment and in terms of the delays implicit in redesign, engineering, and fabrication of systems and components. [REDACTED]

25X1

Among the basic West European options available to the Soviets and the West European firms are:

- o Use of the 21 GE-manufactured rotor sets shipped to Europe prior to the December 1981 embargo for the Frame V 25-MW turbines that the USSR had ordered from Nuovo Pignone, AEG-Kanis, and John Brown. (This option would violate the extended embargo.) [REDACTED]
- o Use of rotor sets manufactured by Alsthom-Atlantique using the technology licensed and supplied to that firm by GE prior to December 1981. (This also would violate the extended embargo.) [REDACTED]
- o Use of rotor sets manufactured by Nuovo Pignone, possibly in conjunction with AEG-Kanis, based on their own designs and engineering. (This would raise a question as to whether the resulting equipment might in fact illicitly embody GE technology.) [REDACTED]
- o Use of rotor sets built to Soviet specifications by West European turbine builders and installed in turbine shells of the Soviet GTN-25 design made either in the USSR or in Western Europe. (This alternative presumably would avoid a clash with US sanctions.) [REDACTED]

25X1

25X1

25X1

25X1

SECRET [REDACTED]

25X1

SECRET [REDACTED]

25X1

- o Substitution of smaller West European gas turbines for the desired 25-MW units--possibly the Rolls-Royce RB-211 or Maxi-Avon, or the Swedish Stal-Laval GT-35 12.6-MW industrial turbine. (The RB-211 was under active consideration a year ago before the GE Frame V was selected. The Soviets have some of the smaller Maxi-Avons in use now, and the Stal-Laval unit contains some state-of-art Western high-temperature metallurgy.) [REDACTED]

25X1

- o Substitution of large electric motors (12-MW to 16-MW capacity) for gas turbines on parts of the pipeline where adequate power supply is available. Such units are available from Siemens (West Germany) and Brown-Boveri (Switzerland). [REDACTED]

25X1

Although not embodying state-of-art technology, the GE Frame V industrial gas turbines was chosen for the export pipeline because of its great reliability and because it could be ordered from firms in three major West European countries. We believe that the Soviets will continue efforts to obtain this unit and that Moscow will, therefore: [REDACTED]

25X1

- o Threaten and/or cajole the West European turbine manufacturers to go along with a substitute source of rotor sets and meet their existing obligations for delivery of Frame V turbines. [REDACTED]

25X1

-4-

SECRET [REDACTED]

25X1

SECRET

25X1

- o At the same time--as a hedge against the possible unwillingness of GE's West European manufacturing associates to violate the US embargo or to endanger their licenses from GE--seek assistance from these firms in the manufacture of rotor sets (and perhaps other components) for the Soviet GTN-25 turbine. In return, the Soviets would forgo penalty payments for the failure of the West European companies to deliver Frame V turbines on time.

25X1

-5-

SECRET

25X1